

NOTES IN THE PROVINCES.

THE old church at Halstead, lately decapitated by the removal of its spire—the materials of which were sold to pay the expenses of removal—begins to show other serious signs of decay. The props in the nave have begun to bend under pressure of the roof, and the edifice has been pronounced by the diocesan architect, Mr. Clark, to be quite unsafe, so that the Bishop has ordered it to be closed. According to an estimate by the architect the cost of restoration will be 2,600*l.*; but the parochial resources being exhausted in the building of a new church, 800*l.* alone can be mustered, and the authorities now appeal to the public for aid.—A new font, octagonal and decorated in style of fourteenth century, has been presented to St. Martin's Church, Leicester, by Mr. T. Combe, of Oxford.—Workmen have been engaged at Mansfield in preparations for laying the foundation-stone of the Bentinck monument.—New parochial schools were founded at Foxearth, Essex, on 12th inst. The design is by Mr. J. Clark, and the cost will be 500*l.*, chiefly defrayed by the rector.—In the little church of Bartlow the pews have been replaced by open benches, and the arch in the round tower re-opened; other restorations and repairs have been completed, and the church is re-opened.—The large west window of Holy Rhood Church, Southampton, has been fitted with thick plate glass to exclude noise. Subscriptions are in progress, which it is hoped will enable the authorities to fill the east and chancel windows with stained glass. The gargoyles, which were objected to, are to be reduced to small appropriate ornaments.—A stained glass window of three compartments has been put up in the eastern chancel of the church of Mathern, Chepstow.—The new town hall at Yeovil was opened on Wednesday week. The hall is 58½ feet long, 35 feet broad, and 25 feet high. It is approached from the market-house by iron gates and stone steps with cast-iron balustrades.—Statues to Nelson and Wellington are to be placed on Southsea Common, where Nelson trod his native land for the last time, and where Wellington first stepped on British ground after his last great triumph.—Mangotsfield Church is to be repaired and renovated at a cost of about 450*l.*, besides that of restoring the chancel by the lay impropiators and other offerings. Messrs. Pope, Binden, and Clark, of Bristol, have furnished plans for the work.—The Walsall Town Improvement Commissioners, in choosing from the tenders for buildings, excavations, and gas holder for new gas works, have decided on the tender of Mr. Hale, of Walsall, for buildings and excavations, at 1,493*l.*, with deduction of 10*l.* if base to chimneys brick; and Messrs. Smith and Co., of West Bromwich, for making gas holder and removing old one, at a cost of 809*l.* 10*s.* The works are expected to commence the manufacture of gas at Christmas.—The Sheffield Water Company have caused blocks of gypsum to be deposited in their culvert, in order to prevent the water from imbibing poisonous impurities from the lead cisterns and service-pipes. This may be expected to take place by the water firstly imbibing the gypsum or sulphate of lime, of which it is to be presumed the analytical chemist, Mr. Haywood, who made the suggestion, has found the water to be deficient.—A stone tower, with a spire, is to be built on the church at Bootle; in place of the two unseemly towers, which have been removed. Other alterations are to be made, and seat-room for 400 additional sitters provided.—A German Lutheran Church is to be built at Hull.—The inhabitants of Brigg, in that vicinity, have resolved to erect a Corn Exchange by joint stock shares of 10*l.* each.—A monument has been placed in the east aisle of the north transept of York Minster, to Dr. Beckwith, who bequeathed 45,000*l.* to the cathedral, the Yorkshire Museum, the York Charity Schools, and other laudable objects.—The repair of Knox's house in the High-street of Edinburgh being declared to be impossible, it is proposed to mark the stones, remove them piecemeal, and rebuild the house.—The repair of Jedburgh Abbey has been resumed by the Lothian family trustees. The east wing is now being restored.—Mr. Mackenzie, architect, Elgin, has constructed a design for the Culloden

monument. The model represents a large, irregular, conical mass of rock, with a rough road winding through clefts, &c., to the summit, where, crowning a precipice, is a female figure, leaning on the rock, and mourning, along with her children. At prominent points are tablets, to be erected by clans, or in memory of individuals.—A church in Great Charles-street, Dublin, has been destroyed by fire.

RAILWAY JOTTINGS.

ON the Oxford, Worcester, and Wolverhampton line several hundred labourers, bricklayers, and miners have been discharged from the Mickleton tunnel from want of funds. Only forty men are now employed, and the works will shortly, it is said, be brought to a standstill.—On Wednesday week, in springing two arches of the bridge now building over the Teviot at Roxburgh, on the Kelso and St. Boswell branch of the Edinburgh and Hawick line, the pier gave way, and eight men were buried in the ruin, and killed on the spot.—The North Staffordshire Company have entered into a contract for the working of their whole line. An extensive coach manufacturer at Saltley, near Birmingham, is the contractor. There were fourteen tenders. The contract, however, is limited to the general traffic, rolling stock, and maintenance of permanent way, and does not interfere with the stations, clerks, and receipts. The company's engineer has the power to inflict a penalty of 10,000*l.*, if not satisfied with the fulfilment of the contract. The mileage rate for working and maintaining the locomotives, &c., is about 10*d.* for passenger trains, and 1*s.* for goods trains, and penalties will be incurred by late arrivals or departures.—A scramble for the Pickfordian or carrier class of pickings on the London and North-Western seems to be in progress. The company, it is said, take the singular liberty of breaking open such packages or parcels as they may suspect to contain goods for different parties separately directed, and themselves deliver the goods so separately packed, and appropriate the charges for delivery. Some carriers have had an interview with the Railway Board on this subject, and Mr. Labouchere is said to have admitted that a remedy must be provided. The company, it seems, defy the law, which saddles complainants with heavy expenses, even while they obtain favourable verdicts. Why should small carriers be treated on a different principle from the great carriers at St. Martin's-le-Grand? The post packages and mail bags are not broken open for the sake of such plunder: why should others be so,—and that, too, *ex facie*, on the mere *a priori* chance of twice chargeable contents? Should other railway companies follow such an example, why not steam and other shipping companies, coach and omnibus proprietors, and other carriers themselves of all kinds inclusive? And if so, what seal would be safe and sacred from such an universal parcel hunt? No parent even could safely send a lot of ticketed toys to each of his children, no friend enclose a few presents, without the chance of separate charges for the delivery of each, and none whatever any parcel or package, without affording a feasible pretence, on the part of carriers of all sorts, for breaking it open and examining its contents. It is for Government Custom-house authorities alone, with any show of propriety or right, to be allowed such a license, as that so cavalierly practised and insisted on by these North-Western Railway authorities—great though they be—in this free country.—There are two million of rivets in the tubular bridge over the Menai Straits, each an inch in diameter.—A hollow girder bridge, of make similar to the tubular, but with the rails fixed above in place of in the interior, is in course of formation, to cross the Trent at Gainborough on the Manchester, Sheffield, and Lincolnshire line. Two principal hollow girders form the parapets, and the roadway is supported by transverse wrought-iron hollow beams, or tubes, rectangular in section. This bridge was designed by Mr. W. Fowler, and the tubes have been constructed by Mr. Fairbairn. The stone-work consists of a centre-pier, and two elliptical arches of 50 feet span each, terminated by the usual land abutments. The iron-work consists of two spans, together 308

feet, which gives a total length to the bridge of 460 feet. The principal girders are each 336 feet long, 12 feet high, and 3 feet 1 inch wide, having their tops formed of cells 18 inches wide, and 12 inches deep, to resist compression, and the bottom of double-riveted plates, to withstand tension. They are fixed on the middle pier, and supported on the land abutments by rollers, resting on cast-iron plates embedded in the masonry, thus admitting of expansion and contraction. The first girder, if not now also the other, is already fixed.—Mr. Hennett, of Bristol, has just completed a wrought-iron bridge, which weighs 450 tons, and is intended to cross the Thames, at Slough, from the branch line of the Great Western to Windsor.

BENT TIMBER FOR ROOFING.

I OBSERVE that in your journal of the 23rd of May, Mr. John Hay, of Liverpool, has inserted a letter, the purport of which is to claim the merit of the application of bent planks for roofing purposes. His letter is a singular instance of forgetfulness. May I trespass upon you to set him right as to the originality of his discoveries?

Mr. Hay was employed as an architectural assistant upon the Rouen Railway, by Messrs. Mackenzie and Brassey in the year 1843. Whilst engaged on these works, he had the opportunity of examining the bridges of Bezons, Maisons Laffitte, Manoir, and Oissel, which were constructed under Mr. Locke's direction, with main ribs of bent plank.

To proceed to the use of such ribs in roofing did not require a great stretch of imagination. Such as was necessary was, however, made firstly by the foreman of the Rouen station, Mr. John Milroy. He made a model of a rib roof to cover the large shed of the station, building up the ribs with bent planks. This model Mr. Hay saw before he made his designs for the Scotch churches. Mr. Milroy's model was made in the spring; Mr. Hay's designs were made in the winter following.

Like all discussions upon the merit of inventions, the last comers have painful reminiscences "that the ancients have stolen our good things." Whether Mr. Hay knew of Col. Emy's work, or not, he had seen several of Mr. Locke's timber bridges; and he was well aware that a bridge upon the same principle had been constructed near Newcastle some years previously.

Mr. Tite executed a very beautiful roof over the Rue Verte station of the Rouen and Havre line with the main ribs of bent planks. Mr. Drake executed the roof of the station at Dieppe with elliptical ribs built in the same manner. I used similar ribs to support the intermediate principals in a large goods shed I built at Havre, so that there is far from being any novelty in the plan. Indeed, when the French possess two elaborate works upon the subject, one by Col. Emy, the other by Col. Ardant, and a multitude of memoirs, one of which is by Navier (a man gathered to his fathers seven years since), it is the height of absurdity, if nothing else, to claim the merit of the invention.

Paris.

GEO. R. BURNELL.

ARCHITECTURAL MATHEMATICIANS;
OR, MATHEMATICAL ARCHITECTS.

A WANT of mathematical acumen and lore has been, with some, a standing reproach against the architectural profession. Let such lovers of the abstract in form and number, if they be such, purchase and digest a recent work of Mr. H. P. Browning, architect,* and probably by the time they have mastered all its articles, definitions, and corollaries, they may be inclined to suspect that, after all, architects do know how to fathom the profundities of algebra and geometry, although they make no great boast of their powers and acquisitions. The profession are certainly deeply indebted to Mr. Browning for his most able contribution towards the removal of even the shadow

* "An Algebra of Ratios, founded on simple and general definitions, with a theory of exponents extended to incommensurable ratios, and the propositions of the fifth book of Euclid easily and symbolically deduced." By Henry P. Browning, Architect, Stamford. Cambridge: Macmillan, Barclay, and Macmillan. London: Simpkin, Marshall, and Co. 1849.